

## ViFiLite, Phase I

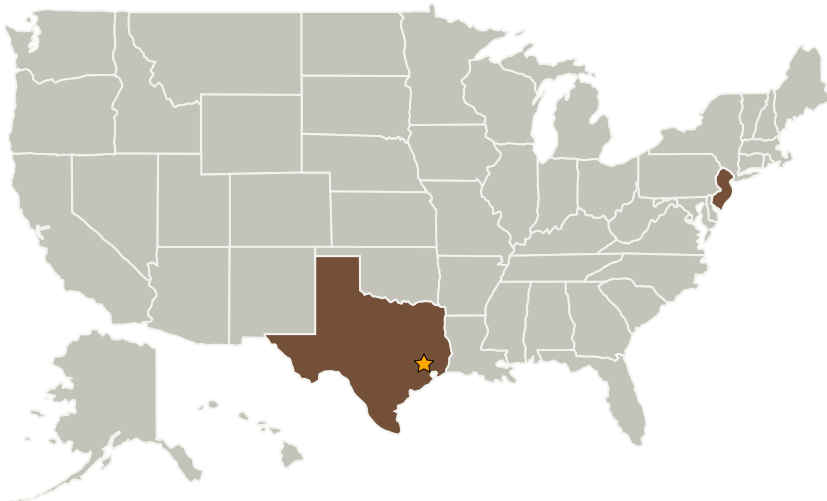
Completed Technology Project (2011 - 2011)



## Project Introduction

ViFiLite is a wireless infrastructure that utilizes the advantages of a V-band technology in supporting data gathering for structural health monitoring as well as supporting high throughput local area wireless communication for NASA applications. This system provides: non-line-of-sight operation, wireline level reliability for the link, high node density, high throughput links, low delay data/signal, susceptibility to jamming, safe operation near ordnance/fuel for some operations, and compatibility with avionics data bus infrastructure. Our technology incorporates different techniques to utilize the 60GHz band based on the application scenarios to virtually eliminates non-LOS issues in the operating environment. The development of the proposed technology will allow for replacement of the wires for signal data and video communication onboard a spacecraft/space-vehicle platform and reducing risks resulting from the weight, the cost and the time of qualifying the wire-based architecture and the inflexibility of wired connections.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
MaXentric Technologies, LLC	Supporting Organization	Industry	Fort Lee, New Jersey



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## Organizational Responsibility

**Responsible Mission Directorate:**

Space Technology Mission Directorate (STMD)

**Lead Center / Facility:**

Johnson Space Center (JSC)

**Responsible Program:**

Small Business Innovation Research/Small Business Tech Transfer

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### Primary U.S. Work Locations

New Jersey

Texas

### Project Transitions



**February 2011:** Project Start



**September 2011:** Closed out

### Project Management

#### Program Director:

Jason L Kessler

#### Program Manager:

Carlos Torrez

### Technology Areas

#### Primary:

- TX09 Entry, Descent, and Landing
  - └ TX09.4 Vehicle Systems
    - └ TX09.4.6 Instrumentation and Health Monitoring for EDL